

## **Remarks**

In the present response, two claims (3 and 6) are amended. Claims 1-15 are presented for examination.

### **I. Specification**

The title is amended to recite “Piezoelectric Motor for Moving a Carriage Along a Guide.”

### **II. Claim Objection**

Claim 3 is amended to correct a typographical error.

### **III. Claim Rejections: 35 USC § 102(b)**

Claims 1-4 and 6-7 are rejected under 35 USC § 102(b) as being anticipated by USPN 4,987,334 (Jungwirth). Applicants respectfully traverse this rejection.

A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. See MPEP § 2131, also, *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983). Since Jungwirth neither teaches nor suggests each element in the claims, these claims are allowable over Jungwirth.

### **Claim 1**

Claim 1 recites numerous limitations that are not taught or suggested in Jungwirth. By way of example, claim 1 recites “a carriage movable along the guide.” Nowhere does Jungwirth teach or even suggest a carriage that moves along a guide. The Office Action argues that element 18 in Jungwirth corresponds to the claimed “guide” and element 12 corresponds to the claimed “carriage.” Element 12 in Jungwirth is a body for a ring laser gyroscope (RLG), not a carriage. Further, body 12 in Jungwirth never “moves along” a guide. Instead, body 12 oscillates about an axis: “In operation the RLG 10 oscillates about the dither axis” (2: 33-34). Oscillating about an axis is not “moving along” a guide.

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985).

For at least these reasons, independent claim 1 and its dependent claims are allowable over Jungwirth.

As a second example, claim 1 recites a piezoelectric motor that pushes on the guide. Nowhere does Jungwirth teach a piezoelectric motor that pushes a guide. Instead, Jungwirth teaches a piezoelectric pole element. As best shown in Fig. 2a of Jungwirth, this pole element 22 is disposed between an inner surface of an opening 16 and a post 18 (see 2: 43-44). Nowhere does Jungwirth state or suggest that pole element 22 pushes on the post 18.

For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. In *re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

For at least these reasons, independent claim 1 and its dependent claims are allowable over Jungwirth.

As yet another example, claim 1 recites a piezoelectric motor that pushes on the guide so the motor “moves the carriage along the guide.” Nowhere does Jungwirth teach or even suggest that pole element 22 moves a carriage along a guide. Instead, Jungwirth teaches that body 12 oscillates about a post: “An AC signal applied to the electrodes 26 causes RLG 10 to dither, or oscillate, about the dither axis “A” at a frequency substantially equal to the frequency of the AC signal” (3: 36-39). Clearly, Jungwirth teaches that body 12 “oscillates about” the post 18, not “moves along” the post.

Anticipation is established only when a single prior art reference discloses each and every element of a claimed invention united in the same way. *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984).

For at least these reasons, independent claim 1 and its dependent claims are allowable over Jungwirth.

### **Claim 6**

Claim 6 recites numerous limitations that are not taught or suggested in Jungwirth. By way of example, claim 6 recites a piezoelectric motor that pushes on the guide. Nowhere does Jungwirth teach a piezoelectric motor that pushes a guide. Instead, Jungwirth teaches a piezoelectric pole element. As best shown in Fig. 2a of Jungwirth, this pole element 22 is disposed between an inner surface of an opening 16 and a post 18 (see 2: 43-44). Nowhere does Jungwirth state or suggest that pole element 22 pushes on the post 18.

For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

For at least these reasons, independent claim 6 is allowable over Jungwirth.

As yet another example, claim 6 recites a carriage that moves along the guide “to move a head assembly with respect to a tape.” Nowhere does Jungwirth teach or even suggest such a recitation. Jungwirth does not even mention tapes.

Anticipation is established only when a single prior art reference discloses each and every element of a claimed invention united in the same way. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444 (Fed. Cir. 1984).

For at least these reasons, independent claim 6 is allowable over Jungwirth.

### **Claim 7**

Claim 7 recites numerous limitations that are not taught or suggested in Jungwirth. By way of example, claim 7 recites “a carriage movable along the guide.” Nowhere does Jungwirth teach or even suggest a carriage that moves along a guide. The Office Action argues that element 18 in Jungwirth corresponds to the claimed “guide” and element 12 corresponds to the claimed “carriage.” Element 12 in Jungwirth is a body for a ring laser gyroscope (RLG), not a carriage. Further, body 12 in Jungwirth never “moves along” a guide. Instead, body 12 oscillates about an axis: “In operation the RLG 10 oscillates about the dither axis” (2: 33-34). Oscillating about an axis is not “moving along” a guide.

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985).

For at least these reasons, independent claim 7 is allowable over Jungwirth.

As a second example, claim 7 recites a piezoelectric motor that pushes on the guide. Nowhere does Jungwirth teach a piezoelectric motor that pushes a guide. Instead, Jungwirth teaches a piezoelectric pole element. As best shown in Fig. 2a of Jungwirth, this pole element 22 is disposed between an inner surface of an opening 16 and a post 18 (see 2: 43-44). Nowhere does Jungwirth state or suggest that pole element 22 pushes on the post 18.

For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

For at least these reasons, independent claim 7 is allowable over Jungwirth.

As yet another example, claim 7 recites a piezoelectric motor that pushes on the guide so the motor “moves with the carriage along the guide.” Nowhere does Jungwirth teach or even suggest that pole element 22 moves with a carriage along a guide. Instead, Jungwirth teaches that body 12 oscillates about a post: “An AC signal applied to the electrodes 26 causes RLG 10 to dither, or oscillate, about the dither axis “A” at a frequency substantially equal to the frequency of the AC signal” (3: 36-39). Clearly, Jungwirth teaches that body 12 “oscillates about” the post 18, not “moves along” the post.

Anticipation is established only when a single prior art reference discloses each and every element of a claimed invention united in the same way. *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984).

For at least these reasons, independent claim 7 is allowable over Jungwirth.

As yet another example, claim 7 recites “a head carried by the carriage.” Nowhere does Jungwirth teach or even suggest a “head” element. Applicant’s specification defines the term “head” as follows:

A "head" as used in this document means a transducer that either converts an electrical signal to the form required to write the signal to a medium (a write head), or reads a signal from a medium and converts it to an electrical signal (a read head).

Nowhere does Jungwirth teach or even suggest a head as used in claim 7.

There can be no difference between the claimed invention and the cited reference, as viewed by a person of ordinary skill in the art. Scripps Clinic & Research Foundation v. Genentech Inc., 927 F.2d 1565, 1576 (Fed. Cir. 1991).

For at least these reasons, independent claim 7 is allowable over Jungwirth.

#### **IV. Claim Rejections: 35 USC § 103(a)**

Claim 5 is rejected under 35 USC § 103(a) as being unpatentable over Jungwirth. As noted in section III in connection with independent claim 1, Jungwirth does not teach or suggest all the elements of independent claim 1. Claim 5 depends from claim 1. Thus, for at least the reasons provided with connection to independent claim 1, dependent claim 5 is allowable over Jungwirth.

#### **V. Allowable Subject Matter**

Applicant sincerely thanks the Examiner for allowing claims 8-15. Applicant makes a sincere effort to place this entire application in condition for allowance.

### **CONCLUSION**

In view of the above, Applicant believes that all pending claims are in condition for allowance. Allowance of these claims is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. 832-236-5529. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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